PARRYVILLE BRIDGE
(State Route 2008, Section 01B Bridge)
State Route 2008 over Pohopoco Creek
Parryville
Carbon County
Pennsylvania

HAER No. PA-480

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
U. S. Custom House
200 Chestnut Street
Philadelphia, PA 19106

HAER
PA
13-PARV,
2-

HISTORIC AMERICAN ENGINEERING RECORD

PARRYVILLE BRIDGE
(State Route 2008, Section 01B Bridge) HAER NO. PA-480

Location: State Route 2008 over Pohopoco Creek, Parryville, Carbon County, Pennsylvania

UTM: 18.443240.4518480
Quad: Lehighton, PA, 1:24,000

Date of Construction: 1933

Builder: Carbon County

Present Owner: Commonwealth of Pennsylvania
Department of Transportation
Harrisburg, PA 17101-1900

Present Use: Vehicular bridge

Significance: The bridge contributes to the Parryville Historic District. Significant in the nineteenth and early-twentieth-century lumber, iron, and zinc industries, Parryville is characterized by both privately-built and company-built residences, as well as commercial, religious and community buildings dating from this period. The majority of buildings reflect vernacular types with Italianate or Victorian details. Few modern intrusions have altered the village, which retains the feeling of a company town. The Parryville Bridge reflects several periods of reconstruction. Although the stone pier and abutments appear to date to the late nineteenth century (Beers 1875), the present steel I-beam superstructure was installed in circa 1933. At that time the previous plank deck was replaced in kind and the substructure was repaired with concrete. Rehabilitation of the bridge in 1953 included the installation of an open grid steel deck and steel railings along either side. Serving historically to link Parryville to the Carbon Iron Company Works on the opposite side of the Pohopoco Creek, the bridge presently forms the primary means of access between Parryville, the lower Pohopoco Creek Valley, S.R. 2008, and S.R. 0248.

Project Information: This bridge was surveyed as part of a Historic Structures Inventory and Determination of Eligibility Report prepared for the Proposed Parryville Bridge Replacement Project (Dinsmore 1991). The bridge contributes to the Parryville Historic District, which was determined eligible for listing on the National Register of Historic Places with local significance under Criteria A, C, and D. The bridge is currently slated for replacement due to its deteriorated condition and inadequate size. To mitigate the adverse effect, the State Historic Preservation Office stipulated HAER documentation of the bridge within its setting. This documentation was undertaken to fulfill this stipulation.

Phil Ruth and Nancy A. Holst
Cultural Heritage Research Services, Inc. (CHRS)
403 East Walnut Street, North Wales, PA 19454

INTRODUCTION

The Parryville Bridge (S.R. 2008, Section 01B Bridge) is located in Parryville Borough, Carbon County, Pennsylvania. The bridge, constructed of concrete and steel girders in circa 1933 and refurbished in 1953, rests on the stone pier and abutments that survive from an earlier bridge, perhaps one recorded in this location on an 1875 map of Parryville (Beers 1875). The bridge is a contributing element within the Parryville Historic District, which was determined eligible for listing in the National Register of Historic Places in July, 1992, with local significance under Criteria A, C, and D. The Parryville Historic District is comprised of ninety historic structures and one archaeological site (Dinsmore 1991:21). Occupying a triangular site bounded by mountains to the east and the Pohopoco Creek to the southwest, the small village is defined by three northwest-southeast streets: S.R. 2008 (Center Street), Peach Alley, and Main Street, and three cross streets: Chestnut, Pine and Oak streets. The Parryville Bridge carries S.R. 2008 over the Pohopoco Creek at the south end of the town, providing the only access to S.R. 0248, a major regional traffic route running alongside the Lehigh River slightly further to the southwest.

The resources within the district include both company-built and privately-built residences, in addition to commercial, religious, and community buildings. Despite the early importance of the Pine Forest Lumber Company, which established its headquarters in Parryville in the late 1830s, it was the Carbon Iron Company that gave the town its present form, erecting numerous company-built structures from 1855 until the early twentieth century. The Carbon Iron Company works stood opposite the south end of the town, between the Pohopoco Creek and the Lehigh Canal, which ran along the northeast side of the Lehigh River. Employing most of the residents of Parryville, the Carbon Iron Company continued to operate until 1923, when it sold the residences to their occupants, many of whom then went to work for the growing regional zinc industry. The company-built residences are both two- and three-story frame houses, with primarily side-gable roofs, front porches, and stone foundations. The majority of houses, many of which retain architectural integrity, share similar vernacular forms and display minimal Italianate or Victorian decorative elements. The homogeneous house designs and lack of modern intrusions in Parryville help to retain and convey the feeling of a company town (Dinsmore 1991:21, 46).

Aside from the sixty-eight residences, the Parryville Historic District includes structures that show the growth and industrial development of a small Pennsylvania town over time. A stone gristmill, the miller's house, a wood and stone dam, a stone barn, Lock 13 of the Lehigh Canal, and an Adam-style hotel date from an early period when Parryville was a small market and transportation center. The town expanded rapidly after the iron works was established, but

none of the iron works remain. Aside from the residences, the only other extant structure built by the company is the Carbon Iron Company Office, which has been converted into a residence. Other resources include two other former hotels, three churches, a pump station (built in 1903 by the New Jersey Zinc Company), a former boarding house, a former schoolhouse, a former fire hall, the Parryville Bridge, a railroad bridge, a war memorial, and the town cemetery, which lies at the northern end of the village. Non-contributing structures include thirteen residences or additions, a restaurant complex, and concrete abutments to each end of the dam (Dinsmore 1991:21, 46). This report describes the Parryville Bridge and documents its local historical and cultural significance.

PHYSICAL DESCRIPTION OF BRIDGE AND SETTING

The Parryville Bridge carries S.R. 2008 over the Pohopoco Creek. The bridge is owned by the Commonwealth of Pennsylvania and situated within a natural landscape setting at the southern point of entry to the small industrial village of Parryville. The banks of the Pohopoco Creek are overgrown with thick vegetation to either side of the bridge, and a stone-and-wood dam is visible slightly upriver to the west. A stone gristmill, dating to the early nineteenth century, stands just north of the bridge at the intersection of S.R. 2008 (Center Street) and Main Street. An early nineteenth-century Adam-style hotel (now a residence) and the former Carbon Iron Company Office occupy other corners of this principal intersection (Dinsmore 1991:25-26).

The Parryville Bridge is a two-span, steel I-beam bridge that reflects several periods of reconstruction. The stone pier and abutments appear to date to the late nineteenth century, possibly to the bridge recorded in this location on an 1875 map of Parryville (Beers 1875). The present steel I-beam superstructure was installed in circa 1933. According to 1930 plans prepared by Carbon County officials, the earlier plank deck was to be replaced in kind and the substructure repaired with concrete. Rehabilitation of the bridge in 1953 included the installation of an open grid steel deck and steel railings along either side.

The 25.60-meter (84 foot) length of the bridge encompasses two spans, each approximately 11.28 meters (37 feet) long on either side of the center pier. The bridge has a deck width of 7.92 meters (26 feet), accommodating one lane of traffic in each direction and a load of up to 10.89 tonnes (12 tons). Low concrete curbs flank either side of the roadway, and a concrete sidewalk 0.91 meters (3 feet) wide runs along the west side. Guard rails comprised of three horizontal steel rails attached to regularly spaced steel posts stand to either side of the deck. The bridge has a steel open grid deck supported below by steel I-beam stringers running

longitudinally between the abutments and the center pier. A series of transverse I-beams are mounted below the main stringers, cantilevering out beyond the fascia stringers to widen the deck and support the steel guard rails. Both of the abutments and the center pier are constructed of roughly coursed fieldstone. The north and south abutments have U-shaped stone wing walls and a stone retaining wall extends eastward from the north abutment along the bank of the Pohopoco River. The center pier has semi-pyramidal battering on its upstream end. Each masonry substructure has been reinforced by a concrete cap and brought level to support the bridge deck. The greater amount of concrete used to raise the center pier suggests that it may have suffered damage from severe flooding in 1933, the year in which the bridge was reconstructed. Cable guard rails flank the south approach of the bridge and simple transverse steel plates join the bridge with the bituminous paving of both approaches. The bridge shows damage and wear caused by weather and use. The exposed ends of the I-beams are slightly rusted and small holes have rusted through the open grid deck.

The Parryville Bridge represents a common example of a steel I-beam, or steel girder bridge, a type that was built prolifically across the United States from the late nineteenth century throughout the twentieth century. Steel girder technology first emerged in the mid-nineteenth century, when it was used primarily for small railroad bridges and could be easily prefabricated for installation onto masonry piers and abutments at the site. Due to their relative simplicity and economy, steel girder bridges are often judged aesthetically and technologically inferior. Whereas many steel girder bridges utilized concrete to either encase the girders, create decorative parapets, or provide other surfaces suited for minimal embellishment, the steel I-beam structure of the Parryville Bridge is fully exposed (P.A.C. Spero & Company 1991:146-148). Concrete was utilized sparingly on the Parryville bridge for the roadway curbs and sidewalk, and to bring the substructure level with the I-beam stringers. The earlier fieldstone pier and abutments are difficult to date. The sheer sides of the pier and abutments suggest that the original superstructure was either a wooden or steel girder bridge.

LOCAL HISTORICAL BACKGROUND

Moravian settlers of Bethlehem (in present-day Northampton County) and Gnadenhütten (now Carbon County's Lehighton) constructed a road connecting the two settlements in 1748. This wilderness route, extending some 48.28 kilometers (30 miles) through the rugged valley of the Lehigh River, became known as the "Fire Line Road." Approximately 2.43 kilometers (1.5 miles) southeast of Gnadenhütten, where a stream flowing along the southern base of Pohopoco Mountain joined the Lehigh River beside the Fire Line Road, a German named Peter Frantz settled around 1780. A year later he was joined by two other Germans: Leonard Beltz

and Frederick Scheckler. Frantz and Scheckler soon joined forces to dam the neighboring mountain stream—known variously as "Big Creek" and "Pohopoco Creek"—and build a gristmill along its eastern bank. This little industrial settlement was the nucleus around which the village of Parryville eventually grew (Mathews and Hungerford 1884:757-758; Brenckman 1918:313-315).

The development of Parryville was spurred by the opening of three additional transportation routes through its vicinity in the early decades of the nineteenth century. Sometime prior to 1815 a second north-south road was constructed into the area. This "Lehigh Gap Road" joined the Fire Line Road just east of the mouth of Pohopoco Creek. Near this intersection an entrepreneur built a large stone hotel sometime before 1815 (Mathews and Hungerford 1884:757-758; Brenckman 1918:313-315). In 1829, the Lehigh Coal and Navigation Company opened a canal-and-slackwater "Navigation" along the Lehigh River between Easton and Mauch Chunk (present-day Jim Thorpe) (Baer 1981:n.p.). Lock 13 of this water route, which followed the west bank of the Lehigh past the Parryville settlement, was located on the north side of the Pohopoco's mouth, and on the south side of the neighboring settlement (Dinsmore 1991). The canal-and-slackwater system was primarily used for transporting Lehigh Valley coal and lumber to southeastern Pennsylvania markets.

In 1836 the Beaver Meadow Railroad Company completed a railway extending approximately 41.84 kilometers (26 miles) between the company's mines at Beaver Meadow (near present-day Hazleton) and the Parryville settlement, where coal could be transferred from railroad cars to canal boats for transport further southward (Baer 1981:n.p.). Parryville's railroad connection was short-lived, however, as a flood of January 1841 destroyed the railway between Parryville and Penn Haven Junction. The railroad was eventually rebuilt, but only as far south as Mauch Chunk (Mathews and Hungerford 1884:757-758; Brenckman 1918:313-315). Parryville would have to wait a quarter-century for the re-establishment of rail service.

Situated along wagon, water, and rail routes, the Parryville settlement was in a position to enjoy the mid-nineteenth-century economic boom associated with the Lehigh Valley's mushrooming lumber industry. Between 1836 and 1840, the newly-organized Pine Forest Lumber Company established its headquarters in the village, and the company's presence eventually led to the construction of sawmills, lath-mills, and paling-mills along the banks of Pohopoco Creek. It was in honor of the Company's president, Daniel Parry, that the village was named "Parrysville," which was later shortened to "Parryville" (Mathews and Hungerford 1884:757-758; Brenckman 1918:313-315).

While Parryville was put on the map by the lumber industry, the village earned its widest recognition during the second half of the nineteenth century as a hotbed of iron production.

Bowman Brothers and Company built an anthracite-fueled blast furnace beside the Lehigh River at Parryville in 1855. Over the course of the next few decades, the iron firm re-incorporated first as "The Carbon Iron Company" and then as "The Carbon Iron and Pipe Company, Ltd.," while frequently expanding its facilities and production at Parryville. Along with this expansion came the construction of dozens of employee dwellings. A map of Parryville published in 1875, a year after the village was incorporated as a borough, showed approximately 50 single-family residences and duplexes lining Parryville's two main streets (Beers 1875). A bridge was already in place over the Pohopoco Creek at the southern end of town (on or near the site of the present bridge), providing access to the facilities of the Carbon Iron Works and the Lehigh Canal and Navigation Company across the creek from the main body of the village. The 1875 map also reflected the re-establishment of railroad service to the village. This had been accomplished through the extension of the Lehigh & Susquehanna Railroad southward from White Haven to Easton in the late 1860s (Saylor 1964:37-38). Nine years after the 1875 map was published, Parryville comprised nearly 100 residences, two general stores, a flour and feed store, a schoolhouse, a church, and a hotel (Mathews and Hungerford 1884:757-758).

Parryville's Iron Era came to a close in 1923 when the Carbon Furnace Company (the latest corporate incarnation of the original Bowman Brothers and Company) made its final casting and began selling off its holdings in the village. Many of Parryville's former iron workers found employment at the Palmerton plant of the New Jersey Zinc Company (3.65 kilometers [2.26 miles] to the southeast), which had formed in 1900 as a consolidation of several small Lehigh Valley zinc producers (Dinsmore 1991).

According to Carbon County Court records, as of 1929 the main road from Allentown to Mauch Chunk ran through Parryville, rather than along its southwestern outskirts as it does today (Carbon County 1931). The route followed the course of Palmerton Road, Main Street, and Weissport Road northward through the Borough. In 1930, a new state road was built between Parryville and Weissport, running along the southwest side of the Pohopoco Creek, opposite Parryville. The need for this road was outlined in an article published in *The Lehighton Press*, edition of June 13, 1930. The article read in part, "Of interest to Pennsylvania motorists is the near-completion of the Parryville-Weissport section of United States Route 309. Traffic will pass over a portion of the new road by July 1. This will eliminate one dangerous railroad crossing and many hairpin turns, previously a menace to the heavy trunk-line traffic" (*The Lehighton Press* 1930a). An article published in the edition of this paper dated Friday, August 15, 1930 noted that "the new Parryville to Weissport road is expected to be opened to public traffic by next Wednesday. The bridge [carrying the new road over Pohopoco Creek] just north of the Parryville depot is completed and the approaches are almost finished" (*The Lehighton Press* 1930b). For a number of years after its opening, the highway was designated

"State Highway Route 309." This designation was eventually changed to "State Route 163," and, still later, the present S.R. 0248.

With the opening of the new highway, north-south through-traffic was diverted westward around Parryville. Borough residents wishing to use the new road could access it initially via the old Weissport Road, which intersected the new road west of town after crossing the Pohopoco Creek via an 1844-vintage county bridge located approximately 609.6 meters (2,000 feet) northwest of the Borough. This bridge, however, was in poor repair, and the County Commissioners acted to close it. In a petition filed in June 1931, they cited the fact that "the traveling public has sufficient facilities on the new Highway and also has sufficient means of ingress and egress to the Borough of Parryville without the use of the said Bridge or the Highway from point of relocation" (Carbon County 1931). This appears to indicate that Parryville residents were already accessing the new highway via a bridge over the Pohopoco Creek at the southern end of town. This bridge may have been the same structure denoted on the 1875 map providing access to the facilities of the Carbon Iron Works and the Lehigh Canal and Navigation Company. That Borough residents had "sufficient means of ingress and egress to Parryville" strongly suggests that the lane leading from the Borough's Main intersection to the bridge had been transformed into a through-traffic extension of Center Street, which is the status it presently enjoys.

Carbon County officials had begun making plans to rebuild this structure in 1930, or perhaps a year or two earlier. A County engineer completed engineering for a replacement span on June 4, 1930. Among the "Notes" included on one sheet of this engineering were the following:

> Steel Work shall be painted with 2 coats of a paint approved by the Engineer. The second coat to be applied after erection. Bolts thru timbers shall have a plain washer under head and nut, a lock washer for nut on steel. Holes shall be drilled for spiking in all places where spikes come close to ends of timbers. Floor planks shall be full length. Traffic Plates shall be "Neverslip" Traffic Plates made by The American Pressed Steel Co., Philadelphia, Pa., and shall be fastened with lag screws. Lumber shall be Longleaf Pine. Posts for Hand Railing and Hand Rails shall be surfaced; all others [*sic*] lumber shall be in the rough. All lumber, except Hand Rail Posts and Hand Rails, shall be creosoted. Incase abutment ends of Beams in Class "B" Concrete.

A second sheet of this engineering included the following specifications:

> Rebuild Present Plank Bridge, See Plan C13
> Re-space Present I-Beams
> Place additional I-Beams
> Repoint Abutments and Pier
> 60 Sq. Yds. Repointed Masonry
> To be paid for at lump sum price, all labor and materials included.
> Bridge over Flume to be removed. Flume to be filled. To be paid for at lump sum price.
> Approval Recommended July 11, 1930, County Engineer
> Approved [n.d.] 1930 by County Commissioner [name illegible]
> Approved [n.d.] 1930 by County Commissioner [name illegible]
> Approved February 2, 1931 by Division Engineer

It appears from these notes that the engineering called for the repair and re-use of the abutments and pier of the existing structure as the substructure for the new span. A series of fire insurance maps of Parryville published or updated in 1915, 1928, and 1949 provided visual evidence that this plan was carried through. The new superstructure, as depicted on the 1949 map, was of virtually the same width and length as the old superstructure (Sanborn Map Company 1915, 1928, 1949). It was noted in the National Register of Historic Places Nomination prepared for the Parryville Historic District that when the bridge was reconstructed in 1933 "the level of the bridge was raised to permit greater clearance of the Creek" (Dinsmore 1991).

The increase in clearance may have been inspired by back-to-back floods which inundated the Lehigh Valley in August and September of 1933. An article published in the September 8, 1933 edition of *The Lehighton Press* reported that the second of the two floods was "the worst flood in the history of Big Creek Valley."

> Pohopoco, or Big Creek is the main waterway for numerous tributary mountain runs, creeks and rivulets draining a waterbed of many square miles and extending from beyond Gilberts in Monroe County to Parryville. Every water channel was swollen to overflowing, and when these rushing turbulent waters converged in Big Creek valley there was complete inundation of that area for several miles.
>
> The impetus of the flood waters carried away the breast of Levan's dam causing a sudden rise of the stream to within a few inches of the Harrity bridge. Corn fields were under two feet of water and chicken pens and stables were submerged,

> many fowls being drowned. The farm lands for miles were completely devastated. At Parryville station the water covered the old highway.
>
> . . . Flood conditions were the rule everywhere in Big Creek valley, the Pohopoco being from three to four feet higher than it was on August 24 last (*The Lehighton Press* 1933).

A sketch plan of the Parryville bridge and its vicinity, included on the second sheet of 1930 engineering, depicted two three-story stone buildings standing within the alignment of the proposed southern approach to the new bridge. These buildings were "to be removed by owner," according to the engineering. Fire insurance maps dated 1915 and 1928 indicated that these "Furnace Buildings" housed "blast engines" and were owned by the Carbon Iron & Steel Company (Sanborn Map Company 1928). Just south of these buildings, three sets of railroad tracks crossed the alignment of the proposed southern approach. These were also earmarked for removal. A profile of the proposed rebuilt bridge included in this engineering indicated that it was to comprise two spans, each one measuring 11.09 meters (36.41 feet) in length, resting on masonry abutments and a central masonry pier 2 meters (6.58 feet) thick.

The National Register Nomination for the Parryville Historic District (Dinsmore 1991) indicated that the present Parryville Bridge was built in 1933, although no supporting evidence was cited. A review of *The Lehighton Press*, a local weekly newspaper covering events in Parryville, uncovered no references to the Parryville Bridge in editions of the paper published between March 4, 1932 and December 31, 1933. During that period, reports relating to other road and bridge projects in the area frequently made the front page. Neither did a review of editions of the newspaper published in 1930 uncover any reference to the Parryville Bridge. It was during this year that the engineering for the replacement structure was completed and approved.

The Parryville bridge was refurbished approximately two decades after its circa-1933 reconstruction. Engineering produced for this refurbishing, dated June 16, 1953, indicated that the timber deck was to be replaced "with 5 inch [12.70 centimeter] open type steel beam bridge flooring." The bridge was also to be outfitted with "New Steel Railing," and the length of the two spans was to remain at "11.12 meters [36.5 feet]," for an overall length of "24.29 meters [79.69 feet]."

SOURCES OF INFORMATION/BIBLIOGRAPHY

A. Engineering Drawings:
There are two engineering drawings dating from 1930 and one engineering drawing dating from 1953 at the Pennsylvania Department of Transportation Engineering District 5-0, Allentown, PA. The quality of the drawings was insufficient for inclusion with the recordation as photographs.

B. Historic Views:
A thorough search was undertaken of repositories for original photographs, and none were found to survive. Repositories searched included the archives of the Carbon County Commissioners Office, District 5-0 of the Pennsylvania Department of Transportation, and the Dimmick Memorial Library in Jim Thorpe. Although several historic photographs appear in the National Register nomination form for the Parryville Historic District, the original photographs belonged to a long-term resident of Parryville who can no longer be located (Dinsmore 1991).

C. Bibliography:

Primary Sources

Carbon County
1931 Carbon County Docket Book 111, Docket 5-057; Term 1931-6-78.

Secondary Sources

Newspaper Articles

The Lehighton Press
1930a "Rebuilding the River Bridge Rumors Afloat." Front page article in edition of June 13.

1930b "Rapid Progress Made on Roads in Carbon County." Front page article in edition of August 15.

1933 "Creek Inundates M. Chunk Twice Within Ten Days." Front page article in edition of September 8.

Maps

Beers, F.W.
1875 *County Atlas of Carbon*. New York: F.W. Beers.

Sanborn Map Company
1915 "Weissport." New York: Sanborn Map Company.

1928 "Weissport." New York: Sanborn Map Company.

1949 "Weissport." New York: Sanborn Map Company.

Books

Baer, Christopher T.
1981 *Canals and Railroads of the Mid-Atlantic States, 1800-1860*. Wilmington, Delaware: Regional Economic History Research Center, Eleutherian Mills-Hagley Foundation, Inc.

Brenckman, F.
1918 *History of Carbon County, Pennsylvania*. Second edition. Harrisburg, PA: James J. Nungesser.

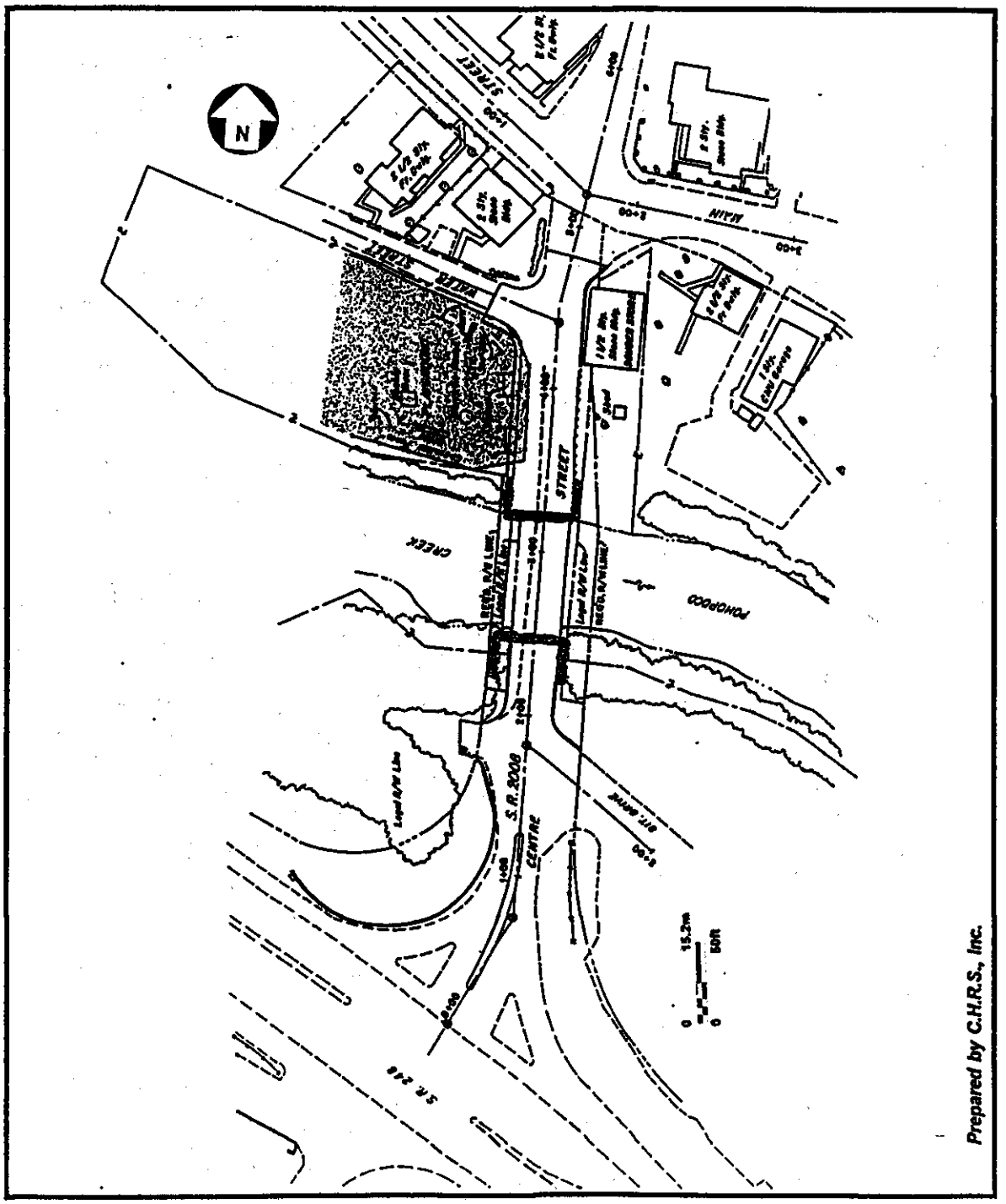
Mathews, A. and A.N. Hungerford
1884 *History of the Counties of Lehigh and Carbon in the Commonwealth of Pennsylvania*. Philadelphia, PA: Everts and Richards.

P.A.C. Spero & Company
1991 *Delaware Historic Bridges Survey and Evaluation*. Wilmington, DE: Delaware Department of Transportation.

Saylor, Roger B.
1964 *The Railroads of Pennsylvania*. [State College, Pennsylvania]: The Pennsylvania State University.

Unpublished Reports and Documents

Dinsmore, Douglas
1991 *National Register of Historic Places Registration Form: Parryville*. Centre Hall, PA: Archaeological and Historical Consultants, Inc.


N
MAIN
STREET
CREEK
POHOPOCO
S.R.2008
CENTRE
Prepared by C.H.R.S., Inc.